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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,475	10/10/2000	Esa Vuoppola	100.157US01	4331

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EXAMINER

NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,475

Applicant(s)

VUOPPOLA, ESA

Examiner

Tu X Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) 24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14, 21-23, 25-27 and 29-32 is/are allowed.
- 6) ☒ Claim(s) 15-20, 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/29/04 have been fully considered but they are not persuasive.

Applicants argue that "The reference does not teach every element of Claims 15 and 28. For example, claim 15 includes the elements 'receiving signals ... passing a first frequency band of the received signal ... passing at least one additional frequency band of the received signal' The Nagode et al. reference do not teach these elements". The Examiner disagrees, Nagode et al. disclose passing a first frequency band (see col.3 lines 60-61); amplifying the first frequency band of the received signal (see col.3 lines 60-61); passing at least one additional frequency band of the received signal without amplification (see col.3 lines 59-60).

Applicants argue that "The Nagode et al. relates to an amplifier 104 that includes diode switches 320 and 330. Please see Figures 2 and 3 of Nagode et al. The diodes are used to provide paths for select the frequency bands column 4, lines 27-41 of the Nagode et al. reference. The diode switches are controlled by signals 116a and 116c. In the Nagode reference, either the high frequency band is passed or the low frequency band is passed but not both at the same time". The Examiner relies on the part of Nagode et al. teaching bypass at least one additional frequency band, but not relies on other features of Nagode et al. in addition, applicants' claim limitations do not include, for example "passing both frequency bands at the same time" in order to distinguish

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from "the diode and transistor are tuned ON when the second frequency band is selected and turn OFF when the first frequency is selected" as disclose by Nagode et al.

Applicants argue that "In addition, Figure 2 of the Nagode o't al. reference relates to amplifier 104 of Figure 1. Amplifier 104 has a first amplifier stage 200, a second amplifier stage 202 and a third amplifier stage 204. Higher frequency bands are amplified in exciter amplifier 206 of the first amplifier stage 200 and the second amplifier stage 202. Low frequency bands are also ...Accordingly, the Nagode et al. reference does not teach every element of Claim 15 of the present invention". The Examiner relies on the part of Nagode et al. teaching bypass at least one additional frequency band in the fist amplifier stage, but not relies on other features of Nagode et al. such as second or fourth amplifier stage.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 15-20 and 28, are rejected under 35 U.S.C. 102(e) as being anticipated by Nagode et al. (US Patent 6,043,721).

Regarding claims 15 and 20, Nagode et al. disclose a method for selectively amplifying upstream signals for at least first and second wireless services, the method comprising:

receiving signals (103,fig.2);

passing a first frequency band of the received signal (see 206, fig.2 and col.3 lines 60-61);

amplifying the first frequency band of the received signal (see 206, fig.2 and col.3 lines 60-61);

passing at least one additional frequency band of the received signal without amplification (see 218 fig.2 and col.3 lines 59-60).

Regarding claim 16, Nagode et al. disclose receiving signals comprises receiving signals for first and second wireless services (see col.3 lines 30-45).

Regarding claim 17, Nagode et al. disclose receiving signals comprises receiving signals in first and second frequency bands, wherein the first frequency band is higher in frequency compared to the second frequency band (see col.3 lines 59-61).

Regarding claim 19, Nagode et al. disclose passing at least one additional frequency band comprises passing a frequency band below 1000 Megahertz (see col.3 lines 30-45).

Regarding claim 28, Nagode et al. disclose everything as claim 15 above. More specifically, Nagode et al. disclose combining the first frequency band and the at least one additional frequency band into a signal for transmission (see col.3 lines 30-45).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagode et al. in view of (Persson 5,821,811).

Regarding claim 18, Nagode et al. fail to disclose the first frequency band between 1850 and 1990 Megahertz.

Persson discloses the first frequency band between 1850 and 1990 Megahertz (see col.2 lines 25-26). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nagode et al. with the above teaching of Persson in order to provide wireless services including signals at relatively high frequency as suggested by Persson.

Allowable Subject Matter

6. Claims 1-14, 21-23, 25-27 and 29-32, allowable.

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding independent claims 1, 7 and 21, none of prior art teaching "a second path, coupled between the first and second ports, the second path including a filter that stops upstream signals in the first frequency band and passes upstream signals in at

least a second frequency band and downstream signals in at least third and fourth frequency bands” as cited in the claim.

Regarding independent claim 29, none of prior art teaching “a plurality of amplification circuits coupled to the antenna and coupled in series, each amplification circuit adapted to selectively amplify upstream signals in a selected frequency band for a selected service and to pass downstream signals and other upstream signals” as cited in the claim.

Regarding dependent claim 25, none of prior art teaching “each base station includes an amplification circuit that amplifies signals received from wireless terminals for one of the service and that passes without amplification signals from other wireless terminals for the other service and passes downstream signals to the wireless terminals” as cited in the claim.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed Tu Nguyen whose telephone number is 703-305-3427. The examiner can normally be reached on Monday through Friday from 8:30AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (703) 308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TW
August 30, 2004


NICK CORSARO
PRIMARY EXAMINER